

NEW DESCRIPTIONS

A NEW SPECIES OF *COPIDOGNATHUS* (HALACARIDAE : ACARI) FROM ANDAMAN ISLANDS¹

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(With thirteen text-figures)

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A new species of Halacaridae (Acari), *Copidognathus greeni* is reported here from Chiriatapu and Chatham Island, Andaman Is.

Copidognathus greeni sp. nov.

Locality: Males and females are encountered among intertidal algal samples collected from Chiriatapu and Chatham Island of Andaman Islands.

Type: Holotype (E) and allotype (G) will be deposited in the National Pusa Collection, Entomology Division, IARI, New Delhi.

Abbreviations used in the text: AD – Anterodorsal plate, AE – Anterior epimeral plate, OC – Ocular plate, PD – Posterodorsal plate, PE – Posterior epimeral plate; GA – Genitoanal plate, GO – Genital opening, PGS – Perigenital seta, SGS – Subgenital seta, PAS – Parambulacral seta, EPI – Epimeral process I.

DESCRIPTION

Female: Idiosomal length ranged between 220 μ m and 250 μ m. All dorsal plates are separate and sculptured with both rosette pores and fovea (Fig. 1), AD with one anterior and one posterior areola. Anterior areola very small, bearing only a few (5-6) small rosette pores. Posterior areola rectangular bearing 8-14 rosette pores (Fig. 7). AD with first pair of dorsal setae located anterior to posterior areolae. The ds_2 on the membranous area between AD and OC. Ocular plate bears two distinct corneae and an

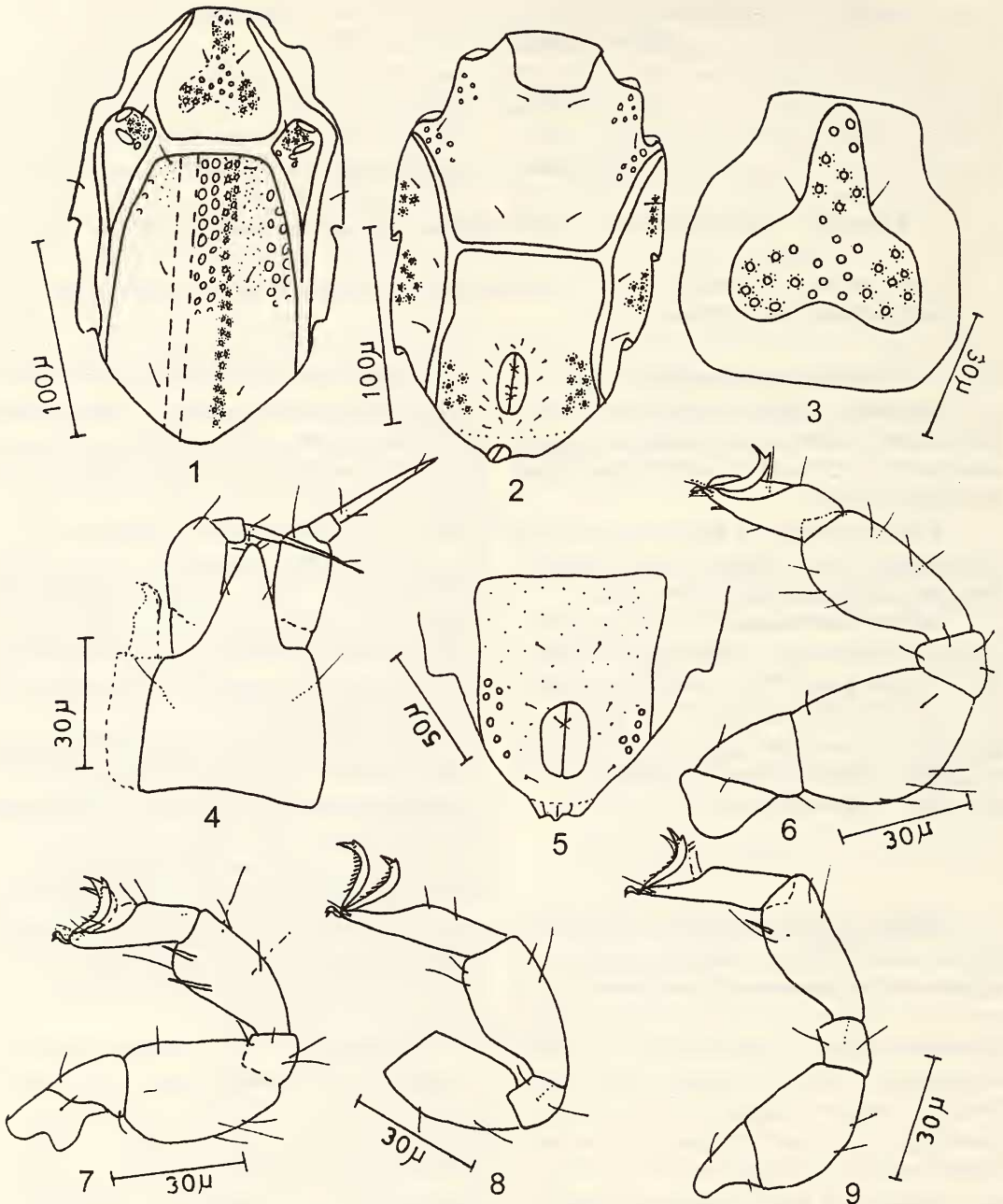
areola comprising a few rosette pores, posterior cornea subdivided into two. OC with a strong elevated crescentic ridge extending from the lateral bar apodeme to the posterior end of the plate (Fig. 6). Posterior portion of OC tapers acutely, extending beyond the insertion of leg III. A few foveae are present on the posterior portion of OC. PD is wider posteriorly. PD narrow and conical anteriorly with a blunt truncated anterior margin. A faint ridge is present on the posterior margin of AD (just above the cuticular membrane).

All ventral plates are separate (Fig. 2). AE without areolae but with pycnotic pores. AE with three pairs of setae. PE with one dorsal seta and three ventral setae. EPI well developed and coxal in origin (Fig. 4). PE bears rosette pores dorsally, GA with paragenital areolae. GO guarded by a pair of sclerites bearing a single pair of subgenital setae near the anterior end. Three pairs of PGS present in the anterior, middle and posterior regions of GA respectively.

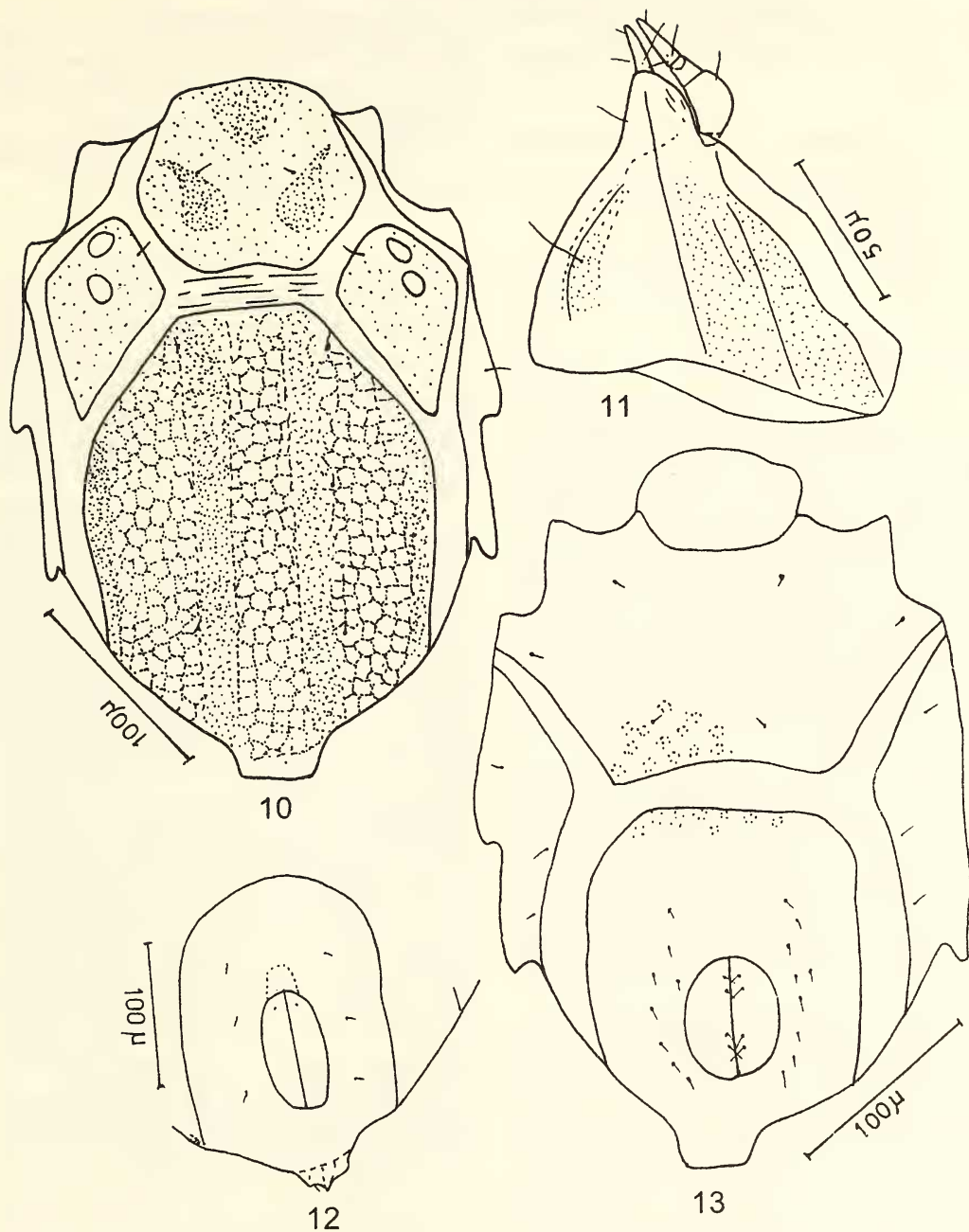
Gnathosoma strong, stout with rostrum tip reaching 2/3 of the palpal femur. Tectum short and acute (Fig. 5). Dorsally, gnathosoma is sculptured with fovea and ventrally with dense compact porose panels at the base on lateral margin (Figs. 5, 8), canaliculi are present in between the porose panels. A pair of proto-, deuto-, trito- and basirostral setae are present. Palp is 4-segmented. Palpal trochanter (P_1) and patella (P_2) devoid of setae, palpal femur (P_3) with

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Figs. 1-9: *Copidognathus greeni* sp. nov. 1. Idiosoma dorsal (E), 2. Idiosoma ventral (E), 3. GA of G, 4. Magnified view of Epimeral process, 5. Gnathosoma, dorsal view, 6. OC, 7. Magnified view of AD, 8. Gnathosoma, ventral view, 9. Chelicera.



Figs. 10-13: *Copidognathus greeni* sp. nov. 10. Leg. I, 11. Leg II, 12. Leg. IV, 13. Leg. III (Telofer-tarsus).

one dorsal seta and palpal tibiotarsus (P_4) with three basal setae and one distal singlet eupathidia.

The chaetotaxy of legs I-IV is as follows:

Trochanter	1-1-1-0.
Basifemur	2-2-2-2.
Telofemur	5-5-2-2.
Patella	4-4-3-3.
Tibia	7-7-5-5.

Tarsus (discussed in the text)

Trochanter III clavate with a minute spine on postero-dorsal side. Telofemora I and II with ventro-distal lamellae. Distal lamellae on telofemora III and IV are feebly developed. Telofemora III and IV devoid of ventral setae. Patella I-IV and tibiae I-IV with distal lamellae. Tibiae I and II bear 4 dorsal and 3 ventral setae (two thick spine-like setae and one slender seta). Ventral margin of tibia II is highly inflated and greatly expanded, rendering the margin highly convex, while the dorsal margin of the segment is almost straight.

Tarsus 1 with 3 ventral setae (one basal filiform seta and two distal eupathidia), 3 dorsal long setae, one solenidion, one profamulus and four PAS (two double eupathidia (Fig. 10). Tarsus II with 3 dorsal long setae, 1 solenidion, 4 PAS, (Fig 11). Tarsi III and IV with 3 dorsal fossary setae, 1 proximo-dorsal seta and 2 PAS (Figs. 12, 13).

Male: Idiosomal length 208 mm to 250 mm. Male resembles the female, except for the genito-anal plate. Eight to eleven PGS are present on each side of the genital foramen. Four pairs of SGS (two pairs located anteriorly and

two pairs posteriorly in the GO area) are present. The distance between GO and anterior margin of GA is almost equal to the length of GO. Paragenital areolae are present (Fig. 3).

Etymology: The species is named after Dr. J. Green, Queen Mary College, UK.

DISCUSSION

This species is closely related to Newell's key goup 5100 (Newell, 1984) because of the presence of a well developed Epl coxal in origin, ds_2 on membranous area between AD and PD; ds_3 on PD; a single pair of basirostral setae in both males and females, and telofemora III and IV devoid of ventral seta.

C. greeni sp. nov. has many similarities with *C. oblongus* Newell 1984, of the key group 5100. In both the species, dorsal and ventral ornamentation are almost alike. Both the species have an almost rectangular posterior areola, two costae (2 pores wide) on PD, telofemora III and IV devoid of ventral setae. Epl well developed and ds_2 on membranous area. But *C. greeni* differs from *C. oblongus* in that the former has a subdivided posterior cornea on OC; rostrum extending upto 2/3 of palpal femur, three dorsal setae and one proximo-dorsal seta on tarsi III and IV, ventral margin of tibia II greatly expanded (Fig. 11). PD relatively narrow anteriorly and the distance between GO and anterior margin of GA is almost equal to the length of GO in males, while in *C. oblongus* the rostrum extends beyond the palpal patella; tarsi III and IV bear 4 and 3 dorsal setae respectively; PD widest anteriorly, GO placed more posteriorly and the distance between GO and the anterior margin of GA is more than twice the length of GO.

REFERENCE

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